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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/749,646

12/31/2003

Wenguang Li

066243-0243 (141218)

9408

33679

7590

06/22/2010

GE MEDICAL SYSTEM
C/O FOLEY & LARDNER LLP
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MILWAUKEE, WI 53202-5306

EXAMINER

LARYEA, LAWRENCE N

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

06/22/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/749,646	LI ET AL.	
	Examiner	Art Unit	
	LAWRENCE N. LARYEA	3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/16/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8 and 10-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 8,10-19** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. At Claim 8, line 6 recites the limitation “the representation of the probe”.

There is insufficient antecedent basis for this limitation in the claim.

At Claim 8, line 4-5 recite limitation “two other images”, “other points”

It is unclear what applicant meant by these limitations.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 8,10,11,13-16 and 18-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Darrow et al (US Patent 5,577,502)** in view of **Epstein (US Patent 5,997,883)**.

6. **Darrow et al** teach a Medical procedures method wherein simultaneously displaying the image and a representation of a probe, the image and the representation of the probe corresponding to substantially the same point (corresponding to the point of

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the displayed with the periodic motion) in a bodily **cycle (See Col. 2, lines 25-28, Col. 5, lines 1-9, Col. 6, lines 20-67)** , however **Darrow et al** does not teach that the MR imaging image **(See Col. 3, lines 28-39)** is generated by interpolating between and/or extrapolating from at least two other images of the organ or structure taken at other points of the bodily cycle.

7. **Epstein** teach a medical images acquisition method comprising an image being generated by interpolating between images of the organ or structure taken at other points of the bodily cycle (See Col.8,lines 34-42, Col.2,lines 27-47, Col.3, lines 49-67, Col.4,lines 1-67; Col.5,lines 1-12) in order to account for variations leading to better resolution image during cardiac procedures since images acquired at cardiac procedures often exhibit blurring or ghosting artifacts. **(See Col. 1, lines 59-67and (Col. 2, lines 27-39)**

8. It would have been obvious to one having ordinary skill in the art at the time invention was made to modify of medical procedures method of **Darrow et al** wherein an image being generated by interpolating between images of the organ or structure taken at other points of the bodily cycle **(See Col.8,lines 34-42, Col.2,lines 27-47, Col.3, lines 49-67, Col.4,lines 1-67; Col.5,lines 1-12)** in order to account for variations leading to better resolution image during cardiac procedures since images acquired at cardiac procedures often exhibit blurring or ghosting artifacts. **(See Col. 1, lines 59-67and (Col. 2, lines 27-39)** as taught by **Darrow et al**.

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9. **Claims 12 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Darrow et al** in view of **Epstein and further view of Packer et al (US Patent 6,556,695)** .

10. **Darrow et al and Packer et** teach the claimed invention see rejection supra, however **Darrow et al and Packer et** do teach the including displaying a map electrical properties of the heart.

11. **Packer et al (US Patent 6,556,695)** teach a medical procedures method including displaying a map of electrical properties of the heart is overlaid on anatomical image in order to guide physician during medical imaging and ablating in real-time **(See Col.12, lines 51; Col.13, lines 1-29, Col.7, lines 24-34)**.

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify of medical procedures method of **Darrow et al and Packer et** including displaying a map of electrical properties of the heart is overlaid on anatomical image and the probe in order to guide physician during medical imaging and ablating in real-time **(See Col.1, lines1-14)** as taught by **Packer et al** .

Response to Arguments

12. Applicant's arguments with respect to claims 8,10-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **Webler (US Pub. 2007/0055142), Hunter (US Pub. 2004/0097806), Osadchy (US Patent 6,368,285), Olstad (US Patent 6,447,450)** teaches claimed invention.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAWRENCE N. LARYEA whose telephone number is (571)272-9060. The examiner can normally be reached on 9:30 a.m.-5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Eric F Winakur/
Primary Examiner, Art Unit 3768

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